

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

1. (Currently amended) A fuel system comprising a fuel vessel, molded parts for the fuel vessel and/or a tube for a fuel in which bodies thereof are constituted from a thermoplastic resin and/or a rubber, wherein:

a coating layer is formed on the surfaces in at least one sides of the insides and the outsides of the fuel vessel body, the molded part bodies for the fuel vessel and/or the tube body for a fuel or at least one of connected parts in these bodies;

the above coating layer is formed by curing an epoxy resin composition comprising an epoxy resin and an epoxy resin curing agent as principal components;

the above coating layer, which is barrier layer for gasoline, has a gasoline permeability coefficient of 2 g·mm/m²·day or less at 60°C and a relative humidity of 60% RH;

the epoxy resin described above comprises at least one selected from an epoxy resin having a glycidylamine part derived from metaxylylenediamine, and an epoxy resin having a glycidylamine part derived from 1,3-bis(aminomethyl)-cyclohexane; and

the epoxy resin curing agent comprises a reaction product of (A) and (B) or a reaction product of (A), (B) and (C):

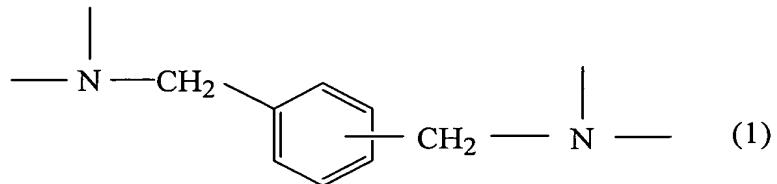
(A) metaxylylenediamine or paraxylylenediamine,

(B) a multifunctional compound having at least one acyl group which can form an amide group part by reacting with polyamine to form an oligomer, the multifunctional compound being selected from the group consisting of acrylic acid, methacrylic acid,

and derivatives of acrylic acid, methacrylic acid, maleic acid, fumaric acid, succinic acid, malic acid, tartaric acid, pyromellitic acid and trimellitic acid, and

(C) monovalent carboxylic acid having 1 to 8 carbon atoms and/or a derivative thereof; and

the coating layer contains skeletal structure represented by the following formula(1)



in an amount of 30% by weight or more based on the weight of the coating layer.

2. (Original) The fuel system as described in claim 1, wherein the gasoline permeability coefficient is 0.2 g·mm/m²·day or less.

3. – 5. (Cancelled).

6. (Original) The fuel system as described in claim 1, wherein the epoxy resin described above comprises the resin having a glycidylamine part derived from metaxylylenediamine as a principal component.

7. (Cancelled).

8. (Previously presented) The fuel system as described in claim 1, wherein the multifunctional compound (B) described above is acrylic acid, methacrylic acid and/or a derivative thereof.
9. (Original) The fuel system as described in claim 1, wherein the coating layer is formed on any surface of the inside and the outside of the fuel vessel body constituted from a thermoplastic resin at an area rate of 50 to 100%.
10. (Original) The fuel system as described in claim 9, wherein the thermoplastic resin constituting the fuel vessel body is a polyolefin resin.
11. (Original) The fuel system as described in claim 10, wherein the thermoplastic resin constituting the fuel vessel body is a polyethylene resin.
12. (Original) The fuel system as described in claim 1, wherein the coating layer is formed on at least one sides of the insides and the outsides of the molded part bodies for the fuel vessel constituted from a thermoplastic resin.
13. (Original) The fuel system as described in claim 12, wherein the thermoplastic resin constituting the molded part bodies for the fuel vessel is a polyolefin resin.
14. (Original) The fuel system as described in claim 13, wherein the thermoplastic resin constituting the molded part bodies for the fuel vessel is a high density polyethylene resin.

15. (Original) The fuel system as described in claim 1, wherein the tube comprises the tube body molded from a thermoplastic resin and/or a rubber and the coating layer formed on an external surface and/or an internal surface of the above tube.

16. (Original) The fuel system as described in claim 15, wherein the thermoplastic resin of the tube body is at least one selected from a polyolefin resin, a polyurethane resin, a polyamide resin, a polyester resin, an acryl resin and a vinyl resin which have flexibility.

17. (Original) The fuel system as described in claim 16, wherein a blending proportion of the epoxy resin curing agent to the epoxy resin contained in the epoxy resin composition in the coating resin layer of the tube body falls in a range of 1.2 to 3.0 in terms of an equivalent ratio (active hydrogen/epoxy group) of active hydrogen contained in the epoxy resin curing agent to an epoxy group contained in the epoxy resin.

18. (Original) The fuel system as described in claim 1, wherein the coating layer is formed on at least one of the connected parts of the body selected from the fuel vessel body, the molded part bodies for the fuel vessel and the tube body for a fuel.

19. (Previously presented) The fuel system as described in claim 1, wherein a reaction mole ratio of (A) to (B), or (A) to (B) and (C), is within a range of

0.3 to 0.97 in terms of number of amino groups in (A) to the number of reactive functional groups in (B), or number of amino groups in (A) to total number of reactive functional groups in (B) and (C).

20. (Previously presented) The fuel system as described in claim 1, wherein a blending proportion of the epoxy resin curing agent to the epoxy resin contained in the epoxy resin composition in the coating resin layer of the tube body falls in a range of 1.2 to 3.0 in terms of an equivalent ratio (active hydrogen/epoxy group) of active hydrogen contained in the epoxy resin curing agent to an epoxy group contained in the epoxy resin, and wherein a blending proportion of the epoxy resin curing agent to the epoxy resin contained in the epoxy resin composition in the coating resin layer of the fuel vessel of the molded part bodies falls in a range of 0.5 to 5.0 in terms of said equivalent ratio.

21. (Previously presented) The fuel system as described in claim 1, wherein a thickness of said coating layer is in a range of 1 to 200 μm .

22. (Previously presented) The fuel system as described in claim 1, wherein said multifunctional compound is selected from the group consisting of said derivatives.

23. (Previously presented) The fuel system as described in claim 1, wherein said epoxy resin includes an epoxy resin having a glycidylamine part derived from 1,3-bis(aminomethyl)-cyclohexane.

24. (New) The fuel system as described in claim 1, wherein said gasoline permeability coefficient of said coating layer is 0.02 g·mm/m²·day or less.

25. (New) The fuel system as described in claim 1, wherein a number average molecular weight of said epoxy resin is in a range of 80 to 4000.